



**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2016-6693; Directorate Identifier 2015-SW-033-AD; Amendment 39-18886; AD 2017-10-12]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for Airbus Helicopters Model AS332C, AS332C1, AS332L, AS332L1, AS332L2, and EC225LP helicopters. This AD requires repetitive inspections of the intermediate gear box (IGB) fairing. This AD was prompted by separation of the IGB fairing from the fairing gutter and subsequent interference with the drive shaft. The actions of this AD are intended to prevent an unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain documents listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Airbus Helicopters, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000

or (800) 232-0323; fax (972) 641-3775; or at

[https://www.airbushelicopters.com/techpub/FO/scripts/myFO\\_login.php](https://www.airbushelicopters.com/techpub/FO/scripts/myFO_login.php). You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-6693.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-6693; or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the European Aviation Safety Agency (EASA) AD, any incorporated-by-reference service information, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations Office, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** David Hatfield, Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177; telephone (817) 222-5116; email [david.hatfield@faa.gov](mailto:david.hatfield@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

On January 5, 2017, at 82 FR 1260, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 by adding an

AD that would apply to Airbus Helicopters Model AS332C, AS332C1, AS332L, AS332L1, AS332L2, and EC225LP helicopters with an IGB fairing part number (P/N) 332A24-0303-05XX, 332A24-0303-06XX, 332A08-1391-00, or 332A08-1391-01 installed, where “XX” is any two alphanumeric characters. The NPRM proposed to require repetitive inspections of the IGB fairing. The proposed requirements were intended to prevent the detachment of the angle section of an IGB and subsequent interference between an IGB fairing and tail rotor inclined drive shaft. This condition could result in failure of a tail rotor drive shaft, loss of the tail rotor drive, and subsequent loss of control of the helicopter.

The NPRM was prompted by AD No. 2015-0092, dated May 26, 2015, issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for the Airbus Model AS332C, AS332C1, AS332L, AS332L1, AS332L2, and EC225LP helicopters with certain part-numbered IGB fairings installed. EASA advises of occurrences involving separation of the angle section of the IGB fairing from the IGB fairing gutter, which caused interference with the tail rotor (T/R) inclined drive shaft. EASA states that this condition, if not detected and corrected, could lead to failure of the T/R drive shaft, loss of the T/R drive, and consequent reduced control of the helicopter. To address this condition, EASA issued a series of ADs, including AD No. 2015-0092, to require repetitive inspections of the IGB fairing and its attachment supports and installation of a new IGB fairing, P/N 332A24-0322-00, as terminating action for the inspections.

## **Comments**

An individual commented that he supports the NPRM.

## **FAA's Determination**

These helicopters have been approved by the aviation authority of France and are approved for operation in the United States. Pursuant to our bilateral agreement with France, EASA, its technical representative, has notified us of the unsafe condition described in the EASA AD. We are issuing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other helicopters of these same type designs and that air safety and the public interest require adopting the AD requirements as proposed.

## **Differences Between this AD and the EASA AD**

The EASA AD requires replacing the IGB fairing with the composite fairing within 31 months. This AD requires this replacement within 150 hours time-in-service.

## **Related Service Information Under 1 CFR part 51**

We reviewed Airbus Helicopters Emergency Alert Service Bulletin (EASB), Revision 5, dated March 9, 2015, which is one document with three different identification numbers. EASB No. 53.01.47 is for Model AS332C, C1, L, L1, L2, and military model B, B1, M, M1, and F1 helicopters. EASB No. 53.00.48 is for military Model AS532-series helicopters. EASB No. 53A001 is for Model EC225 LP and the military Model EC725AP helicopter. EASB Nos. 53.01.47 and 53A001 are incorporated by reference in this AD. EASB No. 53.00.48 is not incorporated by reference in this AD.

This service information specifies repetitive inspections of the IGB fairing, attachment supports, and fairing gutter. This service information also advises that IGB fairing P/Ns 332A24-0303-05XX, 332A24-0303-06XX, 332A08-1391-00, and 332A08-

1391-01 are unfit for flight beginning December 1, 2017, and that these fairings should be replaced with a new composite fairing P/N 332A24-0322-00.

We also reviewed Airbus Helicopters Service Bulletin No. AS332-53.01.78, Revision 0, dated March 9, 2015, for FAA type-certificated Model AS332C, C1, L, L1, and L2 helicopters and military Model AS332B, B1, F1, M, and M1 helicopters, and Airbus Helicopter Service Bulletin No. EC225-53-041, Revision 0, dated March 9, 2015, for the Model EC225LP helicopter. The service information specifies replacing each IGB fairing with a newly designed fairing. Airbus Helicopters identifies replacement of the IGB fairing under these service instructions as Modification 0726819.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

#### **Other Related Service Information**

We reviewed Airbus Helicopters EASB No. 53.01.47, Revision 4, for Model AS332C, C1, L, L1, L2, and military model B, B1, M, M1, and F1 helicopters and EASB No. 53A001, Revision 4, for Model EC225 LP and the military Model EC725AP helicopters. Both EASBs are part of one document that is dated September 27, 2011. The EASBs introduce periodic maintenance on the fairings and on the fairing's attachment angles.

#### **Costs of Compliance**

We estimate that this AD affects 11 helicopters of U.S. Registry and that labor costs average \$85 per work-hour. Based on these estimates, we expect the following costs:

- Visually inspecting each IGB fairing and the left- and right-hand attachment supports for a crack require a 0.5 work-hour for a total cost of \$43 per helicopter and \$473 for the U.S. fleet, per inspection cycle.
- Replacing the IGB fairing requires 2 work hours and parts cost \$2,600, for a total cost of \$2,770 per helicopter and \$30,470 for the U.S. fleet.
- Replacing the attachment supports requires 2 work hours, and parts cost \$1,100 for a total cost of \$1,270 per helicopter.
- Visually inspecting for a crack in the fairing gutter requires 0.5 work hour for a total cost of about \$43 per helicopter.
- Inspecting for interference and separation of the fairing gutter requires 0.5 work hour for a total cost of \$43 per helicopter.
- Replacing the inclined drive shaft tube requires 2 work hours, and parts cost \$18,399, for a total cost of \$18,569 per helicopter.
- Replacing a hydraulic pipe requires 2 work hours, and parts cost \$1,322, for a total cost of \$1,492 per helicopter.
- Repairing the flight control assembly requires 2 work hours, and parts cost \$484, for a total cost of \$654 per helicopter.

#### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: “General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on helicopters identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866;
- (2) Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2017-10-12 **Airbus Helicopters:** Amendment 39-18886; Docket No. FAA-2016-6693; Directorate Identifier 2015-SW-033-AD.

##### **(a) Applicability**

This AD applies to Model AS332C, AS332C1, AS332L, AS332L1, AS332L2, and EC225LP helicopters with an intermediate gear box (IGB) fairing part number (P/N) 332A24-0303-05XX, 332A24-0303-06XX, 332A08-1391-00, or 332A08-1391-01 installed, where “XX” is any two alphanumeric characters, certificated in any category.

##### **(b) Unsafe Condition**

This AD defines the unsafe condition as detachment of the angle section of an IGB and subsequent interference between an IGB fairing and tail rotor inclined drive shaft. This condition could result in failure of a tail rotor drive shaft, loss of the tail rotor drive, and subsequent loss of control of the helicopter.



**(c) Effective Date**

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(d) Compliance**

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

**(e) Required Actions**

(1) Within 15 hours time-in-service (TIS) and thereafter at intervals not to exceed 15 hours TIS, visually inspect the IGB fairing and the left- and right-hand attachment supports for a crack as shown in Figure 2 of Airbus Helicopters Emergency Alert Service Bulletin (EASB) No. 53.01.47, Revision 5, dated March 9, 2015 (EASB No. 53.01.47) or EASB No. 53A001, Revision 5, dated March 9, 2015 (EASB No. 53A001), as appropriate for your model helicopter.

(i) If there is a crack in an attachment support, replace the attachment support.

(ii) If there is a crack in the fairing, replace the IGB fairing with IGB fairing P/N 332A24-0322-00 in accordance with the Accomplishment Instructions, paragraph 3.B.2, of Airbus Helicopters Service Bulletin No. AS332-53.01.78, Revision 0, dated March 9, 2015 (SB No. AS332-53.01.78) or Service Bulletin No. EC225-53-041, Revision 0, dated March 9, 2015 (SB No. EC225-53-041), as appropriate for your model helicopter.

(2) For helicopters with IGB fairing P/N 332A24-0303-05XX or P/N 332A24-0303-06XX, within 15 hours TIS and thereafter at intervals not to exceed 15 hours TIS, visually inspect for a crack in the fairing gutter as shown in Figure 1 of EASB No. 53.01.47 or EASB No. 53A001. If there is a crack in the fairing gutter:

(i) Inspect for interference and separation of the fairing gutter. If there is any interference between the gutter and the tail rotor inclined drive shaft tube, replace the tail rotor inclined drive shaft tube. If there is any interference between the gutter and a hydraulic pipe, repair or replace the hydraulic pipe. If there is any interference between the gutter and the flight controls, repair the flight controls in accordance with FAA-approved procedures. If there is any separation of the gutter, remove the gutter.

(ii) Replace the IGB fairing with IGB fairing P/N 332A24-0322-00 in accordance with the Accomplishment Instructions, paragraph 3.B.2, of SB No. AS332-53.01.78 or SB No. EC225-53-041.

(3) Within 150 hours TIS, replace the IGB fairing P/N 332A24-0303-05XX, 332A24-0303-06XX, 332A08-1391-00, or 332A08-1391-01 with IGB fairing P/N 332A24-0322-00 in accordance with the Accomplishment Instructions, paragraph 3.B.2, of SB No. AS332-53.01.78 or SB No. EC225-53-041.

(4) Replacing the IGB fairing with IGB fairing P/N 332A24-0322-00 is terminating action for the repetitive inspections required by this AD.

(5) Do not install an IGB fairing P/N 332A24-0303-05XX, P/N 332A24-0303-06XX, P/N 332A08-1391-00, or P/N 332A08-1391-01 on any helicopter.

**(f) Credit for Actions Previously Completed**

Compliance with Airbus Helicopters Emergency Alert Service Bulletin (EASB) No. 53.01.47, and EASB No. 53A001, both Revision 4, and both dated September 27, 2011, before the effective date of this AD is considered acceptable for compliance with the initial inspections specified in paragraphs (e)(1) and (e)(2) of this AD, but does not constitute terminating action for the repetitive inspections required by this AD.

**(g) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: David Hatfield, Aviation Safety Engineer, Safety Management Group, Rotorcraft Directorate, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177; telephone (817) 222-5116; email 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

**(h) Additional Information**

The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2015-0092, dated May 26, 2015. You may view the EASA AD on the Internet at <http://www.regulations.gov> in Docket No. FAA-2016-6693.

**(i) Subject**

Joint Aircraft Service Component (JASC) Code: 5350 Aerodynamic Fairings.

**(j) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Airbus Helicopters Emergency Alert Service Bulletin No. 53.01.47, Revision 5, dated March 9, 2015.

Note 1 to paragraphs (j)(2)(i) and (ii): Airbus Helicopters Emergency Alert Service Bulletin No. 53.01.47 and No. 53A001, both Revision 5, and both dated March 9, 2015, are co-published as one document along with Airbus Helicopters Emergency Alert Service Bulletin No. 53.00.48, Revision 5, dated March 9, 2015, which is not incorporated by reference in this AD.

(ii) Airbus Helicopters Emergency Alert Service Bulletin No. 53A001, Revision 5, dated March 9, 2015.

(iii) Airbus Helicopters Service Bulletin No. AS332-53.01.78, Revision 0, dated March 9, 2015.

(iv) Airbus Helicopters Service Bulletin No. EC225-53-041, Revision 0, dated March 9, 2015.

(3) For Airbus Helicopters service information identified in this AD, contact Airbus Helicopters, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at [https://www.airbushelicopters.com/techpub/FO/scripts/myFO\\_login.php](https://www.airbushelicopters.com/techpub/FO/scripts/myFO_login.php).

(4) You may view this service information at FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the

availability of this material at NARA, call (202) 741-6030, or go to:

<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Fort Worth, Texas, on May 5, 2017.

Scott A. Horn,

Acting Manager, Rotorcraft Directorate,  
Aircraft Certification Service.

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